State of Hawaii
DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of Aquatic Resources
Honolulu, Hawaii 96813

May 13, 2010

Board of Land
and Natural Resources
Honolulu, Hawaii

Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Education Permit to Alison Rieser, University of Hawaii, for Access to State Waters to Conduct a Marine Conservation Field Studies Course

The Division of Aquatic Resources (DAR) hereby submits a request for your authorization and approval for issuance of a Papahānaumokuākea Marine National Monument education permit to Alison Rieser, Professor, Department of Geography, UH Manoa, pursuant to § 187A-6, Hawaii Revised Statutes (HRS), chapter13-60.5, Hawaii Administrative Rules (HAR), and all other applicable laws and regulations.

The education permit, as described below, would allow entry and activities to occur in the Papahānaumokuākea Marine National Monument (Monument), including the NWHI State Marine Refuge and the waters (0-3 nautical miles) surrounding the following sites:

- Necker Island (Mokumanamana)
- French Frigate Shoals

The activities covered under this permit would occur between June 3, 2010 and June 13, 2010.

INTENDED ACTIVITIES

The applicant proposes to take undergraduate students from the University of Hawaii on a 10-day voyage into the Monument as part of an interdisciplinary college course. The course, "UH @ SEA: Marine Conservation in Hawaii – Global Problems, Local Solutions", is offered at UH Manoa (UHM) through a partnership with Sea Education Association, Woods Hole, MA.

The purpose of the activities is to provide students with an opportunity to develop marine management and conservation insights and ethics that span marine resource issues and cultural settings in the Hawaiian Archipelago. Students would compare uninhabited marine ecosystems in the Monument (Mokumanamana and French Frigate Shoals) with those in the Main Hawaiian Islands during a six-week immersion course that focuses on ecology, Hawaiian culture, marine environmental history and community-based approaches to resource management.

While in the Monument, students would engage in visual surveys and oceanographic measurements. Visual surveys would be made of the abundance and diversity of benthic and

intertidal communities, marine vertebrates, and marine debris, for comparison with similar communities in the main Hawaiian Islands. These surveys would be conducted by snorkeling and would not require shore access. Surveys would also be conducted using video and photo transects, and well as a small ROV for video surveys below snorkelable depths to 200 meters if conditions allow.

Oceanographic measurements would be made underway using (thermosalinograph) sensors and during stops at stations (conductivity-temperature-depth casts, Niskin bottles to collect water samples for nutrient analyses). Station sampling would also include up to 9 surface tows, performed using a neuston net (1/2 millimeter mesh size) to identify and quantify microscopic marine debris.

All activities would be performed by students under close faculty supervision. It should be noted that several of the faculty and staff who would participate in this voyage have extensive knowledge of and experience in the Monument. A Hawaiian cultural practitioner would also accompany the group.

The proposed educational experience is consistent with the objective of Presidential Proclamation 8031 to provide for carefully regulated educational and scientific activities. The activities proposed by the applicant directly support the Monument Management Plan's action plan 3.5.4 – Ocean Ecosystems Literacy, which has a stated desired outcome "to cultivate an ocean ecosystems stewardship ethic, contribute to the nation's science and cultural literacy, and create a new generation of conservation leaders".

The activities described above may require the following regulated activities to occur in State waters:

- ☒ Removing, moving, taking, harvesting, possessing, injuring, disturbing, or damaging any living or nonliving monument resource
- ☒ Anchoring a vessel
- ☒ Swimming, snorkeling, or closed or open circuit SCUBA diving within any Special Preservation Area or Midway Atoll Special Management Area

REVIEW PROCESS:

The permit application was sent out for review and comment to the following scientific and cultural entities: Hawaii Division of Aquatic Resources, Hawaii Division of Forestry and Wildlife, Papahānaumokuākea Marine National Monument (NOAA/NOS), NOAA Pacific Islands Regional Office (NOAA-PIRO), United States Fish and Wildlife Service Hawaiian and Pacific Islands National Wildlife Refuge Complex Office, and the Office of Hawaiian Affairs (OHA). In addition, the permit application has been posted on the Monument Web site since March 15th, giving the public an opportunity to comment. The application was posted within 40 days of its receipt, in accordance with the Monument's Public Notification Policy.

Comments received from the scientific community are summarized as follows:

Scientific reviews support the acceptance of this application.

Concerns raised were:

1. What is the benefit to the Monument from this activity?
2. Will plankton be preserved immediately after collection?
3. Are the wetlab areas on a closed circuit?

Comments received from the Native Hawaiian community are summarized as follows:

Cultural reviews support the acceptance of this application. No concerns were raised.

Comments received from the public are summarized as follows:

No comments were received from the public on this application.

Additional reviews and permit history:

Are there other relevant/necessary permits or environmental reviews that have or will be issued with regard to this project? (e.g. MMPA, ESA, EA) Yes ☒ No ☐
If so, please list or explain:

- The proposed activities are in compliance with the National Environmental Policy Act.
- The Department has made an exemption determination for this permit in accordance with chapter 343 HRS, and Chapter 11-200, HAR. See Attachment ("DECLARATION OF EXEMPTION FROM THE PREPARATION OF AN ENVIRONMENTAL ASSESSMENT UNDER THE AUTHORITY OF CHAPTER 343, HRS AND CHAPTER 11-200 HAR, FOR PAPAHĀNAUMOKUĀKEA MARINE NATIONAL MONUMENT EDUCATION PERMIT TO ALISON RIESER, UNIVERSITY OF HAWAII, FOR ACCESS TO STATE WATERS TO CONDUCT A MARINE CONSERVATION FIELD STUDIES COURSE UNDER PERMIT PMNM-2010-029").

Has Applicant been granted a permit from the State in the past? Yes ☐ No ☒
If so, please summarize past permits:

Have there been any a) violations: Yes ☐ No ☒
b) Late/incomplete post-activity reports: Yes ☐ No ☒

Are there any other relevant concerns from previous permits? Yes ☐ No ☒

RESPONSE:

1. The applicant states there are at least two benefits to the Monument. First, the UH@SEA course will help to train the next generation of managers for the Monument and other marine protected areas in Hawaii. Second, the students will transmit their experience and appreciation of the values of the Monument to their peers, families and communities, thus helping to maintain public support and funding for the very high level of protection the Monument is receiving.

2. The applicant states that except for a small subsample (~1 ml) that will be retained for quantitative analysis, plankton samples will be preserved immediately. After analysis, the subsample will be added to the preserved sample.

3. The applicant states that the wetlab sink is not closed circuit and goes directly into the ocean, but points out that they will not be using chemical preservatives for the plankton samples and will freeze them on the spot after analysis.

STAFF OPINION:

DAR staff is of the opinion that Applicant has properly demonstrated valid justifications for her application and should be allowed to enter the NWHI State waters and to conduct the activities therein as specified in the application with the following special instructions and conditions, which are in addition to the Papahānaumokuākea Marine National Monument Education Permit General Conditions. All suggested special conditions have been vetted through the legal counsel of the Co-Trustee agencies (see Recommendation section).

MONUMENT MANAGEMENT BOARD OPINION:

The MMB is of the opinion that the Applicant has met the findings of Presidential Proclamation 8031 and this activity may be conducted subject to completion of all compliance requirements. The MMB concurs with the special conditions recommended by DAR staff.

RECOMMENDATION:

That the Board authorize and approve an Education Permit to Alison Rieser, University of Hawaii, with the following special conditions:

1. This permit is not to be used for nor does it authorize the sale of collected organisms. Under this permit, the authorized activities must be for noncommercial purposes not involving the use or sale of any organism, by-products, or materials collected within the Monument for obtaining patent or intellectual property rights.

2. The permittee may not convey, transfer, or distribute, in any fashion (including, but not limited to, selling, trading, giving, or loaning) any coral, live rock, or organism collected under this permit without the express written permission of the Co-Trustees.

3. To prevent introduction of disease or the unintended transport of live organisms, the permittee must comply with the disease and transport protocols attached to this permit.

4. Tenders and small vessels must be equipped with engines that meet EPA emissions requirements.

5. Refueling of tenders and all small vessels must be done at the support ships and outside the confines of lagoons or near-shore waters in the State Marine Refuge.

6. No fishing is allowed in State Waters except as authorized under State law for subsistence, traditional and customary practices by Native Hawaiians.

Respectfully submitted,

Francis Oishi
for Administrator

APPROVED FOR SUBMITTAL

LAURA H. THIELEN
Chairperson

Papahānaumokuākea Marine National Monument

EDUCATION Permit Application

NOTE: ***This Permit Application (and associated Instructions) are to propose activities to be conducted in the Papahānaumokuākea Marine National Monument. The Co-Trustees are required to determine that issuing the requested permit is compatible with the findings of Presidential Proclamation 8031. Within this Application, provide all information that you believe will assist the Co-Trustees in determining how your proposed activities are compatible with the conservation and management of the natural, historic, and cultural resources of the Papahānaumokuākea Marine National Monument (Monument).***

ADDITIONAL IMPORTANT INFORMATION:

- Any or all of the information within this application may be posted to the Monument website informing the public on projects proposed to occur in the Monument.

- In addition to the permit application, the Applicant must either download the Monument Compliance Information Sheet from the Monument website OR request a hard copy from the Monument Permit Coordinator (contact information below). The Monument Compliance Information Sheet must be submitted to the Monument Permit Coordinator after initial application consultation.

- Issuance of a Monument permit is dependent upon the completion and review of the application and Compliance Information Sheet.

INCOMPLETE APPLICATIONS WILL NOT BE CONSIDERED

Send Permit Applications to:
Papahānaumokuākea Marine National Monument Permit Coordinator
6600 Kalaniana'ole Hwy. # 300
Honolulu, HI 96825
nwhipermit@noaa.gov
PHONE: (808) 397-2660 FAX: (808) 397-2662

SUBMITTAL VIA ELECTRONIC MAIL IS PREFERRED BUT NOT REQUIRED. FOR ADDITIONAL SUBMITTAL INSTRUCTIONS, SEE THE LAST PAGE.

Papahānaumokuākea Marine National Monument
Permit Application Cover Sheet

This Permit Application Cover Sheet is intended to provide summary information and status to the public on permit applications for activities proposed to be conducted in the Papahānaumokuākea Marine National Monument. While a permit application has been received, it has not been fully reviewed nor approved by the Monument Management Board to date. The Monument permit process also ensures that all environmental reviews are conducted prior to the issuance of a Monument permit.

Summary Information

Applicant Name: Alison Rieser
Affiliation: University of Hawaii at Manoa, Department of Geography

Permit Category: Education
Proposed Activity Dates: June 3-13, 2010
Proposed Method of Entry (Vessel/Plane): SSV R C Seamans
Proposed Locations: Mokumanamana, French Frigate Shoals (Tern Island)

Estimated number of individuals (including Applicant) to be covered under this permit: 40
Estimated number of days in the Monument: 10

Description of proposed activities: (complete these sentences):

a.) The proposed activity would...
be an essential component of a course, "UH @ SEA: Marine Conservation in Hawaii -- Global Problems, Local Solutions", offered as an interdisciplinary, upper-division course for credits at UH Manoa (UHM) through a partnership with Sea Education Association, Woods Hole, MA.

b.) To accomplish this activity we would ....
provide undergraduate students from all majors an opportunity to improve our understanding of marine conservation problems that are both unique to Hawaii and that represent global problems for which efforts in Hawaii may offer solutions. Students will compare uninhabited marine ecosystems in the Monument (Mokumanamana and French Frigate Shoals) with those in the Main Hawaiian Islands (Kauai, Oahu, Molokai, Maui, and the Big Island) during a six-week immersion course that focuses on ecology, Hawaiian culture, marine environmental history and community-based approaches to resource management.

c.) This activity would help the Monument by ...
taking full advantage of the history and condition of the Monument to promote interdisciplinary learning about living sustainably within the unique cultural, historical and ecological framework

of the entire Hawaiian archipelago. The proposed educational experience is consistent with the objective of Presidential Proclamation 8031, to provide for carefully regulated educational and scientific activities, and supports the Monument Management Plan's stated need and desired outcome "to cultivate an ocean ecosystems stewardship ethic, contribute to the nation's science and cultural literacy, and create a new generation of conservation leaders through formal environmental education". The activity will also help the Monument by fostering a greater sense of stewardship for the oceans and marine ecosystems in the State of Hawaii.

Other information or background:

This is the first offering of a course at the University of Hawaii-Manoa (UHM) to provide undergraduate students with an opportunity to develop marine management and conservation insights and ethics that span marine resource issues and cultural settings in the Hawaiian archipelago. UHM programs and departments (Geography, Ocean Policy, Biology, and the Marine Option Program) are collaborating with faculty from Hawaii Pacific University and with the faculty and sailing vessel crew of the Sea Education Association (Woods Hole, MA) to provide a rich educational experience for students from diverse backgrounds and majors (geography, marine science, ecology, anthropology) and exposure to real-life applications of conservation research and resource management. For more information on the Sea Education Association, please go to http://www.sea.edu

Section A - Applicant Information

1. Applicant

Name (last, first, middle initial): Rieser, Alison

Title: Professor

1a. Intended field Principal Investigator (See instructions for more information):
Alison Rieser (CV is attached)

2. Mailing address (street/P.O. box, city, state, country, zip): [redacted]

Phone: [redacted]

Fax: [redacted]

Email: [redacted]

For students, major professor's name, telephone and email address: N/A

3. Affiliation (institution/agency/organization directly related to the proposed project):
University of Hawaii at Manoa, Department of Geography, Ocean Policy Program

4. Additional persons to be covered by permit. List all personnel roles and names (if known at time of application) here (e.g. John Doe, Teacher; Jane Doe, Videographer):
22 undergraduate students

3 additional faculty:

Cynthia Hunter, Assoc. Professor, Biology Program, UHawaii Manoa, [redacted]

K. David Hyrenbach, Asst. Professor, Marine Sciences, Hawaii Pacific University (HPU), [redacted]

Jan Witting, Oceanographer, Sea Education Association, [redacted]

Elliot Rappaport, Ship Captain, Sea Education Association, [redacted]

2 Hawaiian cultural practioners (Sabra Kauka, Emily Fielding--invited)

8 Ship crew, 3 Assistant Scientists (Sea Education Association)

Specific names, addresses and full contact information for all participants will be provided in the Monument Compliance Information Sheet.

Section B: Project Information

5a. Project location(s):

		Ocean Based	
☐ Nihoa Island	☐ Land-based	☐ Shallow water	☐ Deep water
☒ Necker Island (Mokumanamana)	☐ Land-based	☒ Shallow water	☒ Deep water
☒ French Frigate Shoals	☒ Land-based	☒ Shallow water	☒ Deep water
☐ Gardner Pinnacles	☐ Land-based	☐ Shallow water	☐ Deep water
☐ Maro Reef			
☐ Laysan Island	☐ Land-based	☐ Shallow water	☐ Deep water
☐ Lisianski Island, Neva Shoal	☐ Land-based	☐ Shallow water	☐ Deep water
☐ Pearl and Hermes Atoll	☐ Land-based	☐ Shallow water	☐ Deep water
☐ Midway Atoll	☐ Land-based	☐ Shallow water	☐ Deep water
☐ Kure Atoll	☐ Land-based	☐ Shallow water	☐ Deep water
☐ Other			

NOTE: There is a fee schedule for people visiting Midway Atoll National Wildlife Refuge via vessel and aircraft.

Location Description:

Ship-based surveys around Mokumanamana and French Frigate Shoals; land-based observations at Tern Island (French Frigate Shoals)

5b. Check all applicable regulated activities proposed to be conducted in the Monument:

☒ Removing, moving, taking, harvesting, possessing, injuring, disturbing, or damaging any living or nonliving Monument resource

☐ Drilling into, dredging, or otherwise altering the submerged lands other than by anchoring a vessel; or constructing, placing, or abandoning any structure, material, or other matter on the submerged lands

☒ Anchoring a vessel

☐ Deserting a vessel aground, at anchor, or adrift

☐ Discharging or depositing any material or matter into the Monument

☐ Touching coral, living or dead

☐ Possessing fishing gear except when stowed and not available for immediate use during passage without interruption through the Monument

☐ Attracting any living Monument resource

☐ Sustenance fishing (Federal waters only, outside of Special Preservation Areas, Ecological Reserves and Special Management Areas)

☐ Subsistence fishing (State waters only)

☒ Swimming, snorkeling, or closed or open circuit SCUBA diving within any Special Preservation Area or Midway Atoll Special Management Area

6 Purpose/Need/Scope ***State purpose of proposed activities:***

The purpose of and need for this expedition is to provide college students from all majors an opportunity to contrast the ocean productivity, ecological diversity, cultural understanding, and marine management alternatives throughout the range of inhabited and uninhabited places within the Hawaiian archipelago. The intent is for these and future students to learn how to contribute solutions to marine conservation problems here and around the world, since students at the University of Hawaii come from many different countries and territories.

7. Answer the Findings below by providing information that you believe will assist the Co-Trustees in determining how your proposed activities are compatible with the conservation and management of the natural, historic, and cultural resources of the Monument:

The Findings are as follows:

a. How can the activity be conducted with adequate safeguards for the cultural, natural and historic resources and ecological integrity of the Monument?

The University of Hawaii and HPU faculty involved in this expedition have experience in promoting stewardship and understanding of the resources and ecosystems of the Monument. Sea Education Association (SEA) has a 39-year history of providing opportunities for college students on how to understand and safeguard cultural, natural, and historical resources of the oceans. Although this is SEA's first sailing within Monument waters, SEA vessels have visited the Palmyra National Wildlife Refuge repeatedly since 2002, most recently in December 2009 (SUP #12533-09023). These visits demonstrate SEA's commitment to compliance with National Wildlife Refuge and protected area regulations. Students in the course proposed in this permit application will receive pre-voyage training in Monument management from the perspective of the co-trustees and Native Hawaiian cultural practitioners. This training will be reinforced through direct experience throughout the voyage within the Monument. Personnel from the FWS and NMFS will accompany the students while on land at French Frigate Shoals to ensure minimal intrusion upon the wildlife habitat.

b. How will the activity be conducted in a manner compatible with the management direction of this proclamation, considering the extent to which the conduct of the activity may diminish or enhance Monument cultural, natural and historic resources, qualities, and ecological integrity, any indirect, secondary, or cumulative effects of the activity, and the duration of such effects?

Our ecological surveys of algae, plankton, coral and other invertebrates, fish, and other wildlife will not adversely affect the ecological integrity of the Monument but will contribute to the current knowledge of biotic resources and their relationship to the physical environment. Students will participate in volunteer activities as requested and supervised by FWS Refuge staff and the field staff of the NMFS's Marine Mammal Research Program while at Tern Island.

c. Is there a practicable alternative to conducting the activity within the Monument? If not, explain why your activities must be conducted in the Monument.

We believe there is no practical alternative. The opportunity to compare and contrast through direct observation the ecology and resource management of the Monument and Main Hawaiian Islands marine ecosystems will provide profound, invaluable perspectives for students with future careers in marine conservation that cannot be matched by any other experience.

d. How does the end value of the activity outweigh its adverse impacts on Monument cultural, natural and historic resources, qualities, and ecological integrity?

We envision that this 6-week immersion course will make life-changing impressions on these students, which they in turn will share with their peers, families, and the broader communities in which they live, as they explore and discover the ecological and human dimensions of marine conservation in the diverse and fragile Hawaiian marine ecosystem.

e. Explain how the duration of the activity is no longer than necessary to achieve its stated purpose.

Days planned are the minimum necessary to transit under sail from the Main Hawaiian Islands to Mokumanamana and French Frigate Shoals, and return.

f. Provide information demonstrating that you are qualified to conduct and complete the activity and mitigate any potential impacts resulting from its conduct.

We have assembled an interdisciplinary team with the necessary experience and knowledge to carry out this expedition safely and to mitigate any potential impacts that might occur. In addition to Capt. Rappaport's familiarity with Hawaiian waters and many years of experience sailing with students, the instructors have all previously taught while sailing on SEA vessels (Rieser, Hyrenbach, Witting) or on vessels entering the Coral Reef Ecosystem Reserve for educational purposes (Hunter) and have many years of field-teaching experience. Prof. Rieser, as a teacher of ocean law and policy and an environmental lawyer, is very familiar with the provisions of the Monument Proclamation and regulations and their underlying federal and state laws. See Rieser and Van Dyke, 2009, "New Marine Monuments Settle Issues" (attached).

g. Provide information demonstrating that you have adequate financial resources available to conduct and complete the activity and mitigate any potential impacts resulting from its conduct.

All of the proposed activities will be fully supported from the ship, inclusive of all lodging and meals during the proposed shore-based activities. The proposed activities will thus not require any external support on the part of FWS, NOAA or any other entity administering the refuge and

Monument areas. Furthermore, SEA carries insurance policies for grounding and oil spill mitigation as required for entry into the Palmyra Atoll National Wildlife Refuge.

h. Explain how your methods and procedures are appropriate to achieve the proposed activity's goals in relation to their impacts to Monument cultural, natural and historic resources, qualities, and ecological integrity.

Our surveys of marine organisms will be largely observational: with binoculars from onboard the sailing vessel and with snorkeling while in the water. The net tows for marine debris will retain only minimal amounts of organisms and, as such, will incur minimal impacts on the integrity of the Monument. While at Tern Island, staffs of the FWS and NMFS will instruct us on vantage points that will not disturb the wildlife. Cultural practitioners will advise us on appropriate methods for observing those resources of cultural and historical significance that we are likely to encounter while in the Monument.

i. Has your vessel has been outfitted with a mobile transceiver unit approved by OLE and complies with the requirements of Presidential Proclamation 8031?

The SSV Robert C. Seamans is currently outfitted with a Thrane & Thrane TT 3022D Capsat Inmarsat-based satellite transceiver. Before the expedition, however, it will be outfitted with a unit that has been certified as meeting the requirements of Proclamation 8031.

j. Demonstrate that there are no other factors that would make the issuance of a permit for the activity inappropriate.

We believe there are no other factors that would make the issuance of a permit inappropriate.

8. Procedures/Methods:

Visual surveys will be made of the abundance and diversity of benthic (at Mokumanamana and French Frigate Shoals) and intertidal communities (at French Frigate Shoals), marine vertebrates (sea birds, turtle, and mammals) and marine debris, for comparison with similar communities in the main Hawaiian Islands. If conditions permit, observations will be made by using a small remotely-operated vehicle. Students will also record visual observations of wildlife and marine debris while the vessel is underway.

Oceanographic measurements will be made underway using (thermosalinograph) sensors and during stops at stations (conductivity-temperature-depth casts, Niskin bottles to collect water samples for nutrient analyses). Station sampling will also include up to 9 surface tows,

performed using a neuston net (1/2 millimeter mesh size) to identify and quantify microscopic marine debris.

To compare benthic diversity and community structure, non-destructive visual transect surveys will be conducted at Mokumanamana and French Frigate Shoals. These surveys will use a combination of rapid visual assessments for fish abundance and diversity, and visual, video and photo transects for invertebrate and algal surveys. These surveys will be conducted by snorkelling at four subtidal locations at Mokumanamana and at eight locations on French Frigate Shoals. The surveys will be performed by students under close faculty supervision, will be staged using the ship's two inflatable boats and will not require shore access. In addition, a small ROV (VideoRay PRO MkII) will be used for video surveys below snorkellable depths to 200 meters as conditions allow.

Precise locations of the surveys will be selected in consultation with refuge managers and as allowed by weather at the time of the proposed activity, and all accummulated photo and video material will be analyzed shipboard. The results of these surveys will be compared to similar surveys conducted in the waters around Kauai, Molokai, Maui and Hawaii.

Visual surveys will be made of the abundance and diversity of benthic and subtidal communities, as well as sea birds, turtles, and marine mammals as encountered, for comparison with similar communities in the Main Hawaiiain Islands. Neuston tows will be conducted to identify and quantify microscopic marine debris.

Note: acoustic recordings of ambient noise levels will also be made opportunistically using a hydrophone.

NOTE: If land or marine archeological activities are involved, contact the Monument Permit Coordinator at the address on the general application form before proceeding, as a customized application will be needed. For more information, contact the Monument office on the first page of this application.

9a. Collection of specimens - collecting activities (would apply to any activity): organisms or objects (List of species, if applicable, attach additional sheets if necessary):

No collections of biological specimens will be made, except those captured during tows for microscopic and/or floating marine debris. These materials will be examined, recorded, and any biomass will be frozen for disposal after returning to Honolulu. Given the diversity of the plankton community it is impossible for us to specify what the tows might contain, though the total cumulative amount of material collected (based on tows in waters around the Main Hawaiian Islands) will most likely be less than 1 kg wet weight.

Common name: Various planktonic and/or fouling organisms.

Scientific name: Various

& size of specimens:

Neuston and plankton samples, salinity, temperature, oxygen, chlorophyll a, light and turbidity profiles, as well as ten 250 ml water samples for nutrient analysis (nitrate nitrogen, total inorganic phosphorus) will be collected. Hauls will be processed under microscopes in the shipboard lab.

Collection location:

A maximum of 9 neuston tows (30' each) will be conducted on deep water sites between Mokumanamana and French Frigate Shoals at approximate coordinates of:

23°28'N/163°50'W
23°31'N/164°18'W
23°36'N/164°59'W
23°36'N/165°20'W
23°41'N/165°50'W
23°40'N/166°27'W
23°13'N/166°06'W
23°60'N/165°11'W
22°55'N/164°28'W

☒ Whole Organism ☒ Partial Organism

9b. What will be done with the specimens after the project has ended?
Frozen biomass from plankton tows (or biomass removed from marine debris) will be stored for potential analysis by students at a later date.

9c. Will the organisms be kept alive after collection? ☐ Yes ☒ No

• Specific site/location:
N/A

• Is it an open or closed system? ☐ Open ☐ Closed
N/A

• Is there an outfall? ☐ Yes ☐ No
N/A

• Will these organisms be housed with other organisms? If so, what are the other organisms?
N/A

• Will organisms be released?

No organisms will be released.

10. If applicable, how will the collected samples be transported out of the Monument?

The collected samples will be transported out of the Monument as frozen specimens.

11. Is your proposed activity based on a State Department of Education Standards Based Curriculum? If so, describe:
N/A

12. If applicable, describe how you are collaborating with others in any way to reduce duplicative activities in the Monument or elsewhere?

This is the only course offered at UHM in which students are given an opportunity to study in the Monument. Faculty, students, and staff will share their experiences via blogs and public presentations (see 13).

13. What materials, products or deliverables will be developed as a result of your proposed activity? Provide a time line for write-up and publication of information or production of educational materials:

Each student will prepare written and oral reports to be shared with other class participants, Monument Management and Education staff, and the general public at the annual Marine Option Symposium (April, 2011). In addition, personal and collective blogs from the expedition will be posted online via an Iridium satellite data connection.

14. List all specialized gear and materials to be used in this activity:

SeaBird Electronics SBE 19+ CTD with SBE43 oxygen probe, Seapoint chlorophyll a fluorometer, Wetlabs SeaStar Transmissometer, Seabird SBE 25 integrated rosette water sampler, 333μm neuston net and a 333μm 1-meter plankton net, hydrophone, and VideoRay PRO MkII remotely-operated vehicle.

15. List all Hazardous Materials you propose to take to and use within the Monument:

We propose to use no hazardous materials within the Monument. The ship-board laboratory contains hazardous materials such as formalin and acetone for routine analytical procedures outside the Monument waters. These materials are contained on board in compliance with all

ABS and OSHA regulations and will not be discharged overboard during the cruise. A complete inventory of dry and wet chemicals is appended to this application.

16. Describe any fixed installations and instrumentation proposed to be set in the Monument:
N/A

17. List all Applicants' publications/references directly related to the proposed project:
Rieser, A. and Van Dyke, J.M. 2009. New Marine Monuments Settle Issues. Nat. Resources & Envt. 24(2): 50-52.

Friedlander, A., Aeby, G.S., Brainard, R.E., Brown, E., Clark, A., Coles, S., DeMartini, E.E., Dollar, S., Godwin, S., Hunter, C., Jokiel, P., Kenyon, J.C., Kosaki, R., Maragos, J., Vroom, P.S., Walsh, W., Williams, I., Wiltse, W. 2004. Status of coral reefs in the Hawaiian Archipelago. In Wilkinson C (ed.). Status of coral reefs of the world: 2004, v.2: 411-430. Townsville, MC, Qld.: Australian Institute of Marine Science.

Hyrenbach, D., Nevins, H., Hester, M., Keiper, C., Webb, S., Harvey, J. 2009. Seabirds Indicate Plastic Pollution in the Marine Environment. In: Marine debris in Alaska : coordinating our efforts : proceedings of the Marine Debris in Alaska Workshop, February 14-15, 2008, Anchorage, Alaska / Michael Williams and Erika Ammann, (eds), Fairbanks: Alaska Sea Grant College Program, University of Alaska Fairbanks, pp. 57-61.

Nevins, H-R, Adams, A., Moller, H., Newman, J., Hester, M., Hyrenbach, K.D. 2009. International and cross-cultural management in conservation of migratory species. Journal of the Royal Society of New Zealand: Volume 39(4): 183-185.

Hyrenbach, K.D. 2008. Applying Spatially-explicit Measures for Albatross Conservation, Pp. 118-120. In: De Roi, T., Jones, M., Fitter, J. (Eds). Albatross: their world, their ways. Firefly Books, Buffalo, NY.

Hebshi, A.J., Duffy, D.C., Hyrenbach, K.D. 2008. Associations between seabirds and subsurface predators around Oahu, Hawaii. Aquatic Biology 4: 89-98.

Hyrenbach, K.D., Keiper, C., Allen, S.G., Anderson, D.J., and Ainley, D.G. 2006. Use of national marine sanctuaries by far-ranging predators: commuting flights to the California Current System by breeding Hawaiian albatrosses. Fisheries Oceanography, 15 (2): 95-103.

Hyrenbach K. D. 2001. Albatross response to survey vessels: implications for studies of the distribution, abundance & prey consumption of seabird pops. MarEcolProgSer212:283-295.
Stevenson, C., Katz, L., Micheli, F., Block, B., Heiman, K., Perle, C., Weng, K., Dunbar, R., Witting, J. 2007. High apex predator biomass on remote Pacific islands. Coral Reefs 26: 47–51.

With knowledge of the penalties for false or incomplete statements, as provided by 18 U.S.C. 1001, and for perjury, as provided by 18 U.S.C. 1621, I hereby certify to the best of my abilities under penalty of perjury of that the information I have provided on this application form is true and correct. I agree that the Co-Trustees may post this application in its entirety on the Internet. I understand that the Co-Trustees will consider deleting all information that I have identified as "confidential" prior to posting the application.

Alison Rieser — Feb. 1, 2010

Signature — Date

SEND ONE SIGNED APPLICATION VIA MAIL TO THE MONUMENT OFFICE BELOW:

Papahānaumokuākea Marine National Monument Permit Coordinator
6600 Kalaniana'ole Hwy. # 300
Honolulu, HI 96825
FAX: (808) 397-2662

DID YOU INCLUDE THESE?

☒ Applicant CV/Resume/Biography
☒ Intended field Principal Investigator CV/Resume/Biography
☒ Electronic and Hard Copy of Application with Signature
☒ Statement of information you wish to be kept confidential
☒ Material Safety Data Sheets for Hazardous Materials

Papahānaumokuākea Marine National Monument
Compliance Information Sheet

1. Updated list of personnel to be covered by permit. List all personnel names and their roles here (e.g. John Doe, Diver; Jane Doe, Field Technician, Jerry Doe, Medical Assistant):

Participant list

Last name	First name	Position
Rappaport	Elliot	captain
Witting	Jan	faculty
Rieser	Alison	faculty
Hunter	Cynthia	faculty
Hyrenbach	David	faculty
Murphy	Ka'iulani	cultural pract.
Iacchei	Matt	teaching assistant
O'Keefe	John	1st mate
Amster	Jay	2nd mate
Barnes	Brian	3rd mate
Murray	Seth	engineer
Haberman	Mackenzie	asst. engineer
McCullogh	Maggie	steward
Twichell	Nathaniel	1st asst. scientist
Jones	Randy	2nd asst. scientist
Boyd	Gregory	3rd asst. scientist
Gniadek	Kimberly	deckhand
O'hare	James	deckhand
Worf	Allen	deckhand
Barau	Jenefer	student
Cole	Michelle	student
Desjardins	Mary	student
Duley	Sabelo	student
Hoen	Danielle	student
Janebo	Camilla	student
Johnson	Shealin	student
Kama	Elise	student
Kleven	Alana	student
Lubura-Winchester	Bjorda	student
McCarthy	Kayne	student
Pascher	Henry	student
Peeble	John	student
Salazar	Andrew	student
Savella	Adrian	student

Scarborough	Victoria	student
Suka	Rhonda	student
Tabata	Ryan	student
Troller	Jackie	student
Walker	Nyssah	student
Williams	Zachary	student

2. Specific Site Location(s): (Attach copies of specific collection locations):

1) Surface Neuston tows for plastics and plankton at coordinates:

23°28'N/163°50'W
23°31'N/164°18'W
23°36'N/164°59'W
23°36'N/165°20'W
23°41'N/165°50'W
23°40'N/166°27'W
23°13'N/166°06'W
23°60'N/165°11'W
22°55'N/164°28'W

2) Shore visit on Tern Island as facilitated by FWS personnel on site.

3) Ship-based ROV observations of benthic communities at Niihoa and Mokumanamana inside the 100m isobath as weather conditions permit.

3. Other permits (list and attach documentation of all other related Federal or State permits):

None

3a. For each of the permits listed, identify any permit violations or any permit that was suspended, amended, modified or revoked for cause. Explain the circumstances surrounding the violation or permit suspension, amendment, modification or revocation.

N/A

4. Funding sources (Attach copies of your budget, specific to proposed activities under this permit and include funding sources. See instructions for more information):

The sailing school vessel Robert C. Seamans of Sea Education Association (SEA), Woods Hole, MA, provides all logistical support for the proposed activities. The program, a collaboration with University of Hawaii and SEA is self funded through student tuition and a $9900 grant from UH Sea Grant.

5. Time frame:
Activity start: : Thursday, June 3rd
Activity completion: Sunday, June 13th

Dates actively inside the Monument:
From: Thursday, June 3rd
To: Sunday, June 13th

Describe any limiting factors in declaring specific dates of the proposed activity at the time of application:

Since we are travelling on a sailing vessel and therefore subject to weather contingencies, the dates above represent our best estimate of time of entry and exit to/from the monument waters.

Personnel schedule in the Monument:

All persons on board will be present on the ship at all times with the exception of the proposed shore visits to Tern Island. The ship will be anchored off Tern Island on 7-9th of June. During this time, the students will be conducting visual surveys of bird populations and coral reef communities at sites around the island. Site selection will be done in consultation with the FWS site manager. All personnel will depart with the ship on the 9th.

6. Indicate (with attached documentation) what insurance policies, bonding coverage, and/or financial resources are in place to pay for or reimburse the Monument trustees for the necessary search and rescue, evacuation, and/or removal of any or all persons covered by the permit from the Monument:

We have requested insurance declaration for insurance company and will supply the same upon receipt. Policy covers liability, grounding and oil spills and staff evacuations.

7. Check the appropriate box to indicate how personnel will enter the Monument:

☒ Vessel
☐ Aircraft

Provide Vessel and Aircraft information:

8. The certifications/inspections (below) must be completed prior to departure for vessels (and associated tenders) entering the Monument. Fill in scheduled date (attach documentation):

☒ Rodent free, Date: Scheduled for 17th of May
☒ Tender vessel, Date: Scheduled with Scott Godwin for May 3rd
☐ Ballast water, Date: n/a
☐ Gear/equipment, Date: n/a
☒ Hull inspection, Date: Scheduled with Scott Godwin for May 3rd

9. Vessel information (NOTE: if you are traveling aboard a National Oceanic and Atmospheric Administration vessel, skip this question):
Vessel name: Robert C. Seamans
Vessel owner: Sea Educations Association, Woods Hole, MA
Captain's name: Elliot Rappaport
IMO#: 9245483
Vessel ID#: 1109124
Flag: USA
Vessel type: Brigantine auxiliary sailing ship
Call sign: WDA4486
Embarkation port: Honolulu
Last port vessel will have been at prior to this embarkation: Honolulu
Length: 134.5'
Gross tonnage: 211 ITC
Total ballast water capacity volume (m3): 0
Total number of ballast water tanks on ship: 0
Total fuel capacity: 5680 gal.
Total number of fuel tanks on ship: 6
Marine Sanitation Device: Yes
Type: Type II

Explain in detail how you will comply with the regulations regarding discharge in the Monument. Describe in detail. If applicable, attach schematics of the vessel's discharge and treatment systems:

Vessel is equipped with type II marine sanitation device, as well as four holding tanks with a total capacity of 2868 gallons . In normal operations the ship can hold all waste for 6-7 days. This allows us to comply with the no-discharge regulations during the near-shore operations within the monument.

Other fuel/hazardous materials to be carried on board and amounts:

See attached lists. The lab carries some routine analytical chemicals, and the ship's stores include standard maintenance-related chemicals. All of these have been detailed in the attached inventories.

Provide proof of a National Oceanic and Atmospheric Administration (NOAA) Office of Law Enforcement-approved Vessel Monitoring System (VMS). Provide the name and contact information of the contractor responsible for installing the VMS system. Also describe VMS unit name and type:

NOAA monument office has kindly lent us a Faria Watchdog VMS unit which will be installed on the ship by Navtech Electronics, Honolulu. All this has been coordinated with Justin Rivera at the NOAA office, and he arrange for the activation of the unit on May 18th.

VMS Email:
Inmarsat ID#:

10. Tender information:

On what workboats (tenders) will personnel, gear and materials be transported within the Monument? List the number of tenders/skiffs aboard and specific types of motors:

1 Avon 13' RIB, 25 HP Honda 4-stroke outboard
1 Avon 15' inflatable, 25 HP 4-stroke outboard

Additional Information for Land Based Operations

11. Proposed movement of personnel, gear, materials, and, if applicable, samples:

Student field trips for bird observations and shallow reef visual surveys between 7-9th of June as coordinated with FWS on-site personnel. All ship to shore travel will be facilitated with ship's tenders, and all personnel will stay onboard the ship unless specifically part of the field trips.

12. Room and board requirements on island:

None

13. Work space needs:

None

DID YOU INCLUDE THESE?
☒ Map(s) or GPS point(s) of Project Location(s), if applicable
☐ Funding Proposal(s)
☐ Funding and Award Documentation, if already received
☐ Documentation of Insurance, if already received
☐ Documentation of Inspections
☐ Documentation of all required Federal and State Permits or applications for permits

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF AQUATIC RESOURCES
1151 PUNCHBOWL STREET, ROOM 330
HONOLULU, HAWAII 96813

April 28, 2010

TO: Division of Aquatic Resources File

THROUGH: Laura H. Thielen, Chairperson

FROM: Francis Oishi, Aquatic Biologist
Division of Aquatic Resources

DECLARATION OF EXEMPTION FROM THE PREPARATION OF AN ENVIRONMENTAL ASSESSMENT UNDER THE AUTHORITY OF CHAPTER 343, HRS AND CHAPTER 11-200 HAR, FOR PAPAHĀNAUMOKUĀKEA MARINE NATIONAL MONUMENT EDUCATION PERMIT TO ALISON RIESER, UNIVERSITY OF HAWAII, FOR ACCESS TO STATE WATERS TO CONDUCT A MARINE CONSERVATION FIELD STUDIES COURSE UNDER PERMIT PMNM-2010-029

The following permitted activities are found to be exempted from preparation of an environmental assessment under the authority of Chapter 343, HRS and Chapter 11-200, HAR:

Project Title:
Papahānaumokuākea Marine National Monument Education Permit to Alison Rieser, University of Hawaii, for Access to State Waters to Conduct a Marine Conservation Field Studies Course

Permit Number: PMNM-2010-029.

Project Description:
The education permit application, as described below, would allow entry and activities to occur in Papahānaumokuākea Marine National Monument (Monument), including the NWHI State waters from approximately June 3, 2010 through June 13, 2010.

This is an effort to take undergraduate students from the University of Hawaii on a 10-day voyage into the Monument as part of an interdisciplinary college course. It is part of a six-week immersion course that focuses on ecology, Hawaiian culture, marine environmental history and community-based approaches to resource management. While in the Monument, activities conducted would include snorkeling and survey activities, as well as a limited number of plankton tows.

The proposed activities are in direct support the Monument Management Plan's priority management needs through action plan 3.5.4 – Ocean Ecosystems Literacy. The Ocean Ecosystems Literacy Action Plan specifies to support efforts to continue teacher and class-at-sea programs on an annual basis. Activities to support education, including those that "continue to provide educational opportunities for teachers and students at the NWHI", such as those to be

carried out by the permittee, are addressed in the Monument Management Plan Environmental Assessment. This EA summarizes that the natural environment would be protected and the strong cultural and spiritual ties of Native Hawaiians to the NWHI would be maintained through educational expeditions to the NWHI, and that this could result in beneficial effects on cultural and historic resources. (PMNM MMP Vol 2, p.197).

Consulted Parties:
The permit application was sent out for review and comment to the following scientific and cultural entities: Hawaii Division of Aquatic Resources, Hawaii Division of Forestry and Wildlife, Papahānaumokuākea Marine National Monument (NOAA/NOS), NOAA Pacific Islands Regional Office (NOAA-PIRO), United States Fish and Wildlife Service Hawaiian and Pacific Islands National Wildlife Refuge Complex Office, and the Office of Hawaiian Affairs (OHA). In addition, the permit application has been posted on the Monument Web site since March 15th, giving the public an opportunity to comment. The application was posted within 40 days of its receipt, in accordance with the Monument's Public Notification Policy.

Exemption Determination:
After reviewing HAR § 11-200-8, including the criteria used to determine significance under HAR § 11-200-12, DLNR has concluded that the activities under this permit would have minimal or no significant effect on the environment and that issuance of the permit is categorically exempt from the requirement to prepare an environmental assessment based on the following analysis:

1. All activities associated with this permit, including snorkeling and monitoring, have been evaluated as a single action. As a preliminary matter, multiple or phased actions, such as when a group of actions are part of a larger undertaking, or when an individual project is precedent to or represents a commitment to a larger project, must be grouped together and evaluated as a single action. HAR § 11-200-7. This permit does not involve an activity that is precedent to a later planned activity.

2. The Exemption Class for Resource Evaluation with no Serious or Major Environmental Disturbance Appears to Apply. Chapter 343, HRS, and section 11-200-8, HAR, provide for a list of classes of actions exempt from environmental assessment requirements. HAR §11-200-8.A.5. specifically exempts the class of actions which involve "basic data collection, research, experimental management, and resource evaluation activities, which do not result in a serious or major disturbance to an environmental resource." This exemption class has been interpreted to include "surveys, censuses, inventories, studies, photographing, recording, sampling, collection, culture and captive propagation of aquatic biota", such as those being proposed.

The proposed monitoring and survey activities here appear to fall squarely under the exemption class #5, exempt item #4 as described under the former Fish and Game Division exemption list published in January 19, 1976. Surveys, inventories, and photography are considered monitoring activities used in resource evaluation. As discussed below, no significant disturbance to any environmental resource is anticipated. Thus, so long as the below considerations are met, an exemption class should include the action now contemplated.

3. Cumulative Impacts of Actions in the Same Place and Impacts with Respect to the Potentially Particularly Sensitive Environment Will Not be Significant. Even where a categorical exemption appears to include a proposed action, the action cannot be declared exempt if "the cumulative

impact of planned successive actions in the same place, over time, is significant, or when an action that is normally insignificant in its impact on the environment may be significant in a particularly sensitive environment." HAR § 11-200-8.B. To gauge whether a significant impact or effect is probable, an exempting agency must consider every phase of a proposed action, any expected primary and secondary consequences, the long-term and short-term effects of the action, the overall and cumulative effect of the action, and the sum effects of an action on the quality of the environment. HAR § 11-200-12. Examples of actions which commonly have a significant effect on the environment are listed under HAR § 11-200-12.

Since the designation of the Monument, no project of this type (a class group on an independent vessel) has been undertaken to date. The most similar project permitted was for a teacher group to conduct marine activities at Nihoa, Mokumanamana and French Frigate Shoals in 2008, (PMNM-2008-040). There were no deleterious effects from the previous project which included similar activities. With this in mind, significant cumulative impacts are not anticipated as a result of this activity, and numerous safeguards further ensure that the potentially sensitive environment of the project area will not be significantly affected. All activities will be conducted in a manner compatible with the management direction of the Monument Proclamation in that the activities do not diminish monument resources, qualities, and ecological integrity, or have any indirect, secondary, cultural, or cumulative effects. The joint permit review process did not reveal any anticipated indirect or cumulative impacts, nor did it raise any cultural concerns, that would occur as a result of these activities.

There will be three other active permits accessing the waters of Nihoa, Mokumanamana, and French Frigate Shoals during June 2010. These permits will all be associated with the June NOAA Ship HI'IALAKAI cruise. The ship will be conducting routine operations under permit PMNM-2010-007; Vincent Collins will be conducting an interdisciplinary educators program under permit PMNM-2010-040; and Carl Meyer will be conducting sharking tagging and tracking activities, under permit PMNM-2010-019, in conjunction with the educational program. Permit PMNM-2010-040 includes snorkeling and monitoring activities for the purpose of resource evaluation, similar to the proposed permit. However, the culmination of these four permits, which would bring a total of 89 people into an approximately 837 sq. km. area of State waters in the Monument over a one month period, is not anticipated to have significant cumulative impacts.

Since no significant cumulative impacts or significant impacts with respect to any particularly sensitive aspect of the project area are anticipated, the categorical exemptions identified above should remain applicable.

4. Overall Impacts will Probably be Minimal and Insignificant. Any foreseeable impacts from the proposed activity will probably be minimal, and further mitigated by general and specific conditions attached to the permit. Specifically, all education activities covered by this permit will be carried out with strict safeguards for the natural, historic, and cultural resources of the Monument as required by Presidential Proclamation 8031, other applicable law and agency policies and standard operating procedures. The permittee and participants would be briefed in advance of the voyage to ensure complete knowledge of necessary safeguards, cultural awareness and protocols. Students would be escorted and supervised at all times in the field.

Conclusion. Upon consideration of the permit to be approved by the Board of Land and Natural Resources, the potential effects of the above listed project as provided by Chapter 343, HRS and

April 28, 2010

Chapter 11-200 HAR, have been determined to be of probable minimal or no significant effect on the environment and exempt from the preparation of an environmental assessment.

_____ _____

Laura H. Thielen
Board of Land and Natural Resources

Date